BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.	Rulemaking 10-05-004 (Filed May 6, 2010)

DISTRIBUTED ENERGY CONSUMER ADVOCATES REPLY COMMENTS ON NET ENERGY METERING EVALUATION STUDY METHODOLOGY TO ENERGY DIVISION STAFF

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REPLY COMMENTS ON NET ENERGY METERING EVALUATION STUDY METHODOLOGY TO ENERGY DIVISION STAFF

Distributed Energy Consumer Advocates ("DECA") hereby provides reply comments on the proposed methodology for the study of Net Energy Metering ("NEM") to be conducted by Energy and Environmental Economics ("E3") on behalf of the California Public Utilities Commission ("CPUC").

I. Background

DECA is a nonprofit California public benefit corporation that informs and educates residential and small commercial producer-consumers of electricity, and advocates on behalf of such customers in a variety of policy forums. DECA provided comments on the NEM methodology on November 5, 2012 via email to CPUC staffer Ehren Seybert. Those comments were subsequently posted on the Commission's website along with comments from other parties. DECA replies here to the comments of other parties similarly posted.

DECA seeks to promote the optimal regulatory climate and market in which its members and others may invest in distributed clean energy infrastructure, without preference to any single technology. As such, the issues of Net Energy Metering is of critical importance to DECA members. The evaluation of the benefits and costs of NEM is an essential part in understanding the potential for where and how the Commission should implement its DG policies and accordingly, DECA replies to the comments of several parties on the NEM methodology here.

II. Reply Comments on the Proposed E3 Methodology

DECA limits its reply comments to the subjects raised by PG&E, SDG&E, the Interstate Renewable Energy Council ("IREC"), the Division of Ratepayer Advocates ("DRA"), and the

joint parties of Solar Energy Industries Association, Vote Solar Initiative, Sierra Club California, and California Solar Energy Industries Association ("Joint Parties").

IREC

Participant Test

DECA supports the evaluation of NEM including a participant test and suggests that the RIM test may be inadequate for fully evaluating the impact to NEM participants. IREC rightly points to Total Resource Cost as an alternative to the RIM test. DECA also strongly believes that the evaluation of programs should include a recognition that potential participants may participate in activities to replicate the benefits of programs without participating in the program directly and that the Commission risks losing insight into what the those actions are when it loses control of the ability to measure the program.

PG&E

Integration costs

DECA does not agree that integration costs are not considered in the proposed methodology. It is not yet clear if any capacity will be needed for integration once the State's Once Through Cooling forced retirements have been replaced. Additionally, the cost of ancillary services related to integration can and should be considered de minimus for purposes of this study. The total value of ancillary services in the CAISO, irrespective of their "cause", totals less than the cost of the CAISO itself existing as reflected in its grid charge. In comparison to avoided energy and capacity costs, such ancillary services costs are likely smaller than a rounding error.

Ancillary services costs

DECA does not agree with PG&E's assertion that NEM resources do not reduce ancillary service costs. Ancillary service needs are generally calculated based on load, even if indirectly as a result of less generation needing to be online as a result of that lower load. Accordingly, load is reduced by the full output of DG resources regardless of if they are exporting or not, and ancillary service need is reduced.

Resource Balance Year

DECA cautions against removing EE projections from the avoided cost calculations. In response to reliability concerns raised by the CAISO and others, the LTPP proceeding has limited EE to years for which it is funded. This is not unreasonable on face and is consistent with the LTPP proceeding.

DECA disagrees with the assumption, implicit in PG&E's comments on the resource balance year, that all resources must be fully flexible. In fact, the generation fleet, when combined with the resources that load contributes to stability merely needs to have "enough" flexibility. As stated elsewhere in these replies, DECA believes replacement of the state's Once Through Cooling resources will likely address all flexibility needs and, if not, incremental flexibility can be obtained from the existing fleet at a far lower cost than the cost of new capacity. DECA also disagrees that DG resources cannot contribute to flexibility needs. Should those needs be delineated in a discrete way and a market value associated with them, NEM resources may in fact be cost competitive in providing such benefits.

SDG&E

Net-to-Gross

DECA disagrees with SDG&E's characterization of net-to-gross as the appropriate bookend for evaluation of NEM. While a net-to-gross evaluation is a reasonable sensitivity, the Commission must fuly evaluate the export only portion of the NEM program.

DECA also cautions that SDG&E mischaracterizes the intent of AB 2514. So long as "all electricity generated by renewable electric generating systems, including the electricity used onsite to reduce a customer's consumption of electricity that would otherwise be supplied through the electrical grid"[1] is considered, the Commission is satisfying AB 2514. The language does not include any wording to the effect that NEM generation "must be evaluated without consideration for distinctions between exported electricity and that used on site". Even if a narrow construct of this language is used in determining what *must* be studied, trying to limit the Commission's full consideration of NEM is unwise.

Joint Parties

T&D upgrade costs

DECA agrees with the Joint Parties that the advent of standards such as the UL 1741 inverters have greatly reduced concerns over islanding and that, accordingly, the Commission is right to focus its attention on the T&D benefits associated with NEM resources rather than attempting to assign costs to a problem affordable technology already addressed.

FERC Jurisdiction Transmission Costs

DECA agrees with the Joint Parties that excluding a portion of the FERC jurisdiction transmission costs fails to capture the full benefit of NEM resources. While such charges are postage stamped, the physical separation of generation and load is frequently the driver for such infrastructure. Additionally, the utilities' build out of transmission infrastructure comes at a higher regulated rate of return than distribution infrastructure, so any failure to capture such costs has the adverse effect of paying "more" for the mistake than they would for any related expenses associated with the distribution network.

1 PU Code Section 2827.1 (b).

DRA

Sensitivities for a range of netting scenarios

DECA agrees that customers on TOU rates do not need to be net exporters to have a fully netted bill. DECA supports developing sensitivities to consider the range of possible netting scenarios such as netting at a flat retail rate rather than a TOU rate. While DECA is not advocating for such a netting strategy here, the consideration of such information is helpful is understanding the benefits and costs of the range of netting schema.

Modeling changes to "peak" load

DECA strongly supports DRA's suggestion that the model should consider shifts in periods of peak load. DECA cautions however that "peak" load is unlikely to be the driver for high wholesale prices, rather the participation in the wholesale market by peakers for purposes of meeting ramp needs are likely to drive high wholesale prices during both peak and non-peak periods. The effects of this market shift can and should be captured in modeled wholesale prices as well as TOU rates that are representative of a non-daytime peak. DECA believes these considerations can be captured in sensitivities within the scope of work.

RPS value of NEM exports

DECA disagrees with DRA's characterization of the RPS benefits of NEM exports as being a maximum of 33%. DECA is not aware of anything in the Commission's previous decisions on behind the meter resources would prevent the Commission from instituting a program to assign, capture, or authorize the purchase of RECs associated with these resources.

The Resource Balance Year

DECA agrees with DRA's apparent assertion that the Resource Balance Year method for assigning long term avoided cost to NEM resources presents problems, but not necessarily with the direction DRA seems to suggest it should be adjusted. DECA suggests that it is not unreasonable to suggest that the capacity value of a NEM resource be valued at the Cost of New

Entry ("CONE") for a CT based on localized factors. While such a valuation might be considered too high by some parties, it could be mitigated by using CONE only if similarly situated new capacity is needed at all during the life of the NEM resource. Some parties may argue that a CONE-based valuation overvalues the avoided costs, but the Commission has authorized new capacity when its own load and resource tables have suggested that it may not be necessary and the Commission itself has recently valued capacity in non-local areas at above the prices seen in its Resource Adequacy markets. These examples reflect only some of the limitations of a Resource Balance Year methodology. DECA believes that, for benefit cost evaluation purposes, treating NEM resources as an avoided cost based on CONE has far less of a monetary effect on ratepayers than ratebasing any of the resources that have been approved in years when the Resource Balance Year has suggested those resources might not have been needed.

Furthermore, this is, essentially, how fossil plants are compensated in utility RFOs – they are insulated from variations in the value of capacity over time based on the fact that they were deemed necessary at one point. Applying a CONE-based methodology to NEM evaluation a simple mechanism for treating NEM resources on equal footing with non-NEM resources rather than creating a NEM-specific generation evaluation mechanism.

PV production profiles

DECA urges the CPUC Energy Division, through its contractor E3, to model generation profiles that reflect a maximized avoided cost paradigm, rather than a maximized Renewable Portfolio Standard ("RPS") value paradigm. This change should be reflected in both the shape of the generation profiles and the geographic penetration rates of those resources. DECA cautions that the RPS-oriented, flat rate of compensation for every kWh produced is no longer a reasonable assumption for estimating the production profiles of PV resources for a number of reasons including the reduced market value of green attributes, the probability of more granular

Time of Use ("TOU") rates being more widely adopted, and the recognition of the fact that geographically targeted DG procurement is cost effective and beneficial for all ratepayers where Locational Marginal Prices ("LMPs"), and therefore avoided costs, are higher.

Evaluation of NEM must consider modeling generation profiles that reflect probable changes to PV installations based on ratepayer avoided costs in light of a migration to TOU rates as well as a maximized avoided cost associated with avoided LMPs. These changes mean assumptions that orientation of fixed tilt PV panels will likely change from a "maximum kWh" to a "maximum avoided cost" orientation. Similarly, in areas of high LMPs we should expect single and dual axis tracking where avoided costs justify such equipment. DECA's production modeling under a maximized avoided cost fixed tilt orientation indicates that a 5% improvement of avoided costs is a reasonable expectation even in locally constrained areas with only moderate LMPs (e.g. taking LMPs from 2012 rather than 2006). That 5% figure does not reflect the potential for greater DG penetration associated with procurement targets seeking to maximize those avoided costs which could significantly increase the overall cost effectiveness.

III. Conclusion

For the reasons set forth herein, DECA hereby submits reply comments on the proposed NEM methodology.

Respectfully submitted this 15th day of November, 2012.

By */s/*
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